

## METEOROIDS

Edited by V. PORUBČAN, I. P. WILLIAMS  
and V. VANÝSEK

V. PORUBČAN, I. P. WILLIAMS and V. VANÝSEK / Preface	ix-xi
I. P. WILLIAMS / Meteoroid Streams and the Sporadic Background	1-12
D. I. STEEL / The Association of Earth-Crossing Asteroids with Meteoroid Streams	13-30
DAVID W. HUGHES / The Perseid Meteor Shower	31-70
A. CARUSI, Ľ. KRESÁK and G. B. VALSECCHI / Conservation of the Tisserand Parameter at Close Encounters of Interplanetary Objects with Jupiter	71-94
VLADIMÍR VANÝSEK and ZDENĚK MORAVEC / Protosolar Nebula and Composition of Comets	95-106
Z. CEPLECHA / Interactions of Large Meteoroids and Small Interplanetary Bodies with the Earth's Atmosphere: Theories and Observational Constraints	107-126
W. J. BAGGLEY / Radar Surveys of Meteoroid Orbits	127-139
TERRANCE R. ARTER and IWAN P. WILLIAMS / An Investigation of Meteors in Early April	141-153
D. J. ASHER and D. I. STEEL / Theoretical Meteor Radiants for Macroscopic Taurid Complex Objects	155-164
P. B. BABADZHANOV / Orthos' Meteor Showers	165-170
MARTIN BEECH and PETER BROWN / On the Visibility of Bright Venusian Fireballs from Earth	171-179
MARTIN BEECH, PETER BROWN and J. JONES / VLF Detection of Fireballs	181-188
M. BEECH, P. BROWN, R. L. HAWKES, Z. CEPLECHA, K. MOSSMAN and G. WETHERILL / The Fall of the Peekskill Meteorite: Video Observations, Atmospheric Path, Fragmentation Record and Orbit	189-197
O. I. BELKOVICH, T. K. FILIMONOVA and V. V. SIDOROV / Structure of Sporadic Meteor Radiant Distributions from Radar Observations	199-205
O. BELKOVICH, A. GRISHCHENYUK, M. ISHMUKHAMETOVA, S. LEVIN, A. LEVINA, V. MARTYNENKO, N. SULEYMANOV and V. YAREMCHUK / Structure of Perseids from Visual Observations	207-215
JIŘÍ BOROVÍČKA and JAIME ZAMORANO / The Spectrum of Fireball Light Taken with a 2-M Telescope	217-222
P. BROWN and J. JONES / A Determination of the Strengths of the Sporadic Radio-Meteor Sources	223-245
G. CEVOLANI, G. BORTOLOTTI, L. FOSCHINI, C. FRANCESCHI, G. GRASSI, G. TRIVELLONE, A. HAJDUK and V. PORUBČAN / Radar Observations of the Geminid Meteoroid Stream	247-255
W. G. ELFORD, M. A. CERVERA and D. I. STEEL / Meteor Velocities: A New Look at an Old Problem	257-266

O. I. EVDOKIMOV, T. K. FILIMONOVA, V. V. SIDOROV and RASIM AMER ALI / Possibility of Investigation of the Microstreams and Associations by the Radiotomographic Method	267-275
Y. FUJIWARA, M. UEDA, T. NAKAMURA and M. TSUTSUMI / Simultaneous Observations of Meteors with the Radar and TV Systems	277-282
Š. GAJDOŠ, P. ZIGO, P. KOSTECKÝ and K. TAUBINGER / Observation of Collision of Comet Shoemaker-Levy 9 with Jupiter at the Astronomical and Geophysical Observatory in Modra	283-287
M. GAVAJDOVÁ / Search for Associations between Fireball Streams and Asteroids	289-292
A. HAJDUK and A. GALÁD / Meteoric Head Echoes	293-296
M. HAJDUKOVÁ, V. G. KRUCHINENKO, A. M. KAZANTSEV, JU. G. TARANUCHA, A. A. ROZHILO, S. S. YERYOMIN and P. N. KOZAK / Perseid Meteor Stream 1991-1993 from TV Observations in Kiev	297-301
R. L. HAWKES and D. E. B. FLEMING / TVZHR Profile for the 1991 Perseid Shower	303-310
DAVID W. HUGHES / The World's Most Famous Meteor Shower Picture	311-322
S. IBADOV / Ionization Mechanisms of Cometary Comas	323-327
J. JONES and M. SIMEK / A Note on the Determination of Ozone Concentrations from Radio-Meteor Duration Distributions	329-338
T. J. JOPEK / Separation of Meteor Streams from the Sporadic Background	339-346
I. KAPIŠINSKÝ, V. FIGUSCH, A. HAJDUK, J. IVAN and K. IŽDINSKÝ / The Analysis of Four Cosmic Dust Particles	347-360
COLIN KEAY / Continued Progress in Electrophonic Fireball Investigations	361-368
JOZEF KLAČKA and EDUARD M. PITTIČ / Orbital Dispersion of Comet Encke's Meteoroids	369-379
ANDRÉ KNÖFEL / The Fireball Data Center of IMO	381-384
M. KOCIFAJ / Theory of Optical Identification of Submicron Particles in High Atmosphere	385-388
N. V. KULIKOVA and A. V. MYSHEV / Stochastic Modelling of Ejection from Comets and Asteroids (Models and Results)	389-395
B. A. LINDBLAD / The Orbit of the Kappa Cygnid and Related Meteor Streams	397-404
B. A. LINDBLAD / The IAU Meteor Data Center in Lund	405-408
B. A. LINDBLAD and V. PORUBČAN / Radiant Ephemeris and Radiant Area of the Perseid Meteoroid Stream	409-418
INGRID MANN / The Out of Ecliptic Distribution of Interplanetary Dust and Its Relation to Other Bodies in the Solar System	419-426
L. NESLUŠAN, J. SVOREŇ and V. PORUBČAN / A Procedure of Selection of Meteors from Major Streams for Determination of Mean Orbits	427-433
N. NOGAMI / Chinese Local Records of the 1862 Perseids and the 1885 Andromedids	435-441
YU. V. OBRUBOV / A New Octuple Earth-Crossing Meteoroid Stream	443-449
L. M. G. POOLE / Meteor Radiant Distributions Observed from Grahamstown, South Africa	451-464

V. PORUBČAN, A. HAJDUK, G. CEVOLANI, M. F. GABUCCI, M. F. FOSCHINI and G. TRIVELLONE / Lyrids 1994 Observed by a Forward Scatter System	465–469
V. PORUBČAN, J. SVOŘEŇ and L. NESLUŠAN / On Separation of Major Meteoroid Streams from the Sporadic Background	471–478
J. RAJCHL, J. BOČEK, D. OČENAS, J. ŠKVARKA, P. ZIMNIKOVAL, H. MURAYAMA, K. OHTSUKA and J. RAJCHL / Results from Several Persistent Train Spectra Intercompared	479–486
JÜRGEN RENDTEL / Analysis of Perseid Activity from Short Time Visual Count Intervals	487–491
L. SHADBOLT and R. L. HAWKES / Absence of Wake in Faint Television Meteors	493–502
YASUO SHIBA / Radiant Point, Trajectory and Velocity from Single Photographic or TV Observation	503–508
KEN-ICHI SHIBATA / Observations of Meteors by FM Radio Echo at Sapporo, Hokkaido, Japan	509–513
V. A. SMIRNOV / Spatio-Temporal Variations of Density of the Particles Generating the Optical Emission of Meteor Plasma	515–522
NINA A. SOLOVAYA and EDUARD M. PITTCHE / Model Orbits of Asteroid 3040 Kozai	523–528
PAVEL SPURNÝ / EN Photographic Perseids	529–537
J. SVOŘEŇ / Possibilities of Using Extreme Observations to Estimate Cometary Nucleus Sizes	539–544
MILOŠ ŠIMEK / Diurnal and Seasonal Variations of Sporadic Meteor Parameters <i>Summer and Winter Periods</i>	545–553
MILOŠ ŠIMEK and PETR PECINA / Perseid Meteor Stream as Observed in 1993	555–561
E. TAGLIAFERRI, R. SPALDING, C. JACOBS and Z. CEPLECHA / Analysis of the Marshall Islands Fireball of February 1, 1994	563–572
A. K. TERENTJEVA, V. V. KOSTYUNIN and V. V. LYAKHOVICH / Formation of Short-Period Orbits of Minor Bodies of the Mars Family	573–577
J. TICHÁ, M. TICHÝ and Z. MORAVEC / Kleť Minor Planet Discovery Frequency by Months (Comparison)	579–583
M. UEDA and Y. FUJIWARA / Television Meteor Radiant Mapping	585–603
STEPHEN F. WOLF and MICHAEL E. LIPSCHUTZ / Meteoroid Streams: Evidence from Meteorites Recovered on Earth	605–637
ZIDIAN WU and IWAN P. WILLIAMS / The Use of the Distribution of the Orbital Energy to Investigate the Evolution of the Perseid Meteoroid Stream	639–646
KRZYSZTOF ZIOLKOWSKI / Comets and Asteroids in the Taurid Complex: Remarks on a Possible Common Origin	647–651
J. ZVOLÁNKOVÁ / Activity of the Leonid Meteor Shower in the Years 1944–1953	653–660
List of Participants	661–663
The ‘KLUWER’ LaTeX Style File: Instructions for Authors	665–666
Author Index	667–668